6. (Amended) The method of claim 1, wherein the chromatophores are Betta chromatophores.

7. (Amended) The method of identifying a bioactive compound according to claim 1, comprising:

exposing a first type of chromatophore to a sample;

exposing a second type of chromatophore to a sample; and

identifying at least one class of compounds based on detected responses of the first and second types of chromatophores.

10. (Amended) The method of claim 1 useful for identifying a calcium channel blocker, comprising:

exposing an erythrophore chromatophore to a sample and producing an erythrophore response;

exposing a melanophore chromatophore to the sample and producing a melanophore response; and

determining if the sample includes a calcium channel blocker based on the erythrophore response and the melanophore response.

11. (Amended) The method of claim 1 further comprising:

placing one or more color classes of chromatophores in functional contact with the compound; and

measuring a color response of at least one of the classes.

17. (Amended) The test kit of claim 16 wherein the positive control solution contains a compound selected from the group consisting of: norepinephrine, serotonin, forskolin, caffeine, adenosine, dopamine, melanocyte stimulating hormone, melanophore concentrating hormone, and structural and pharmacological analogs, agonists and antagonists of such compounds.

25. (Amended) The method of claim 1 further comprising:

selecting a test cell that produces a cell-induced response on the at least one chromatophore;

exposing a combination of at least one chromatophore and the test cell to the bioactive compound;

exposing the combination to a control compound selected based on a control response produced on the chromatophore;

determining a measured response of the chromatophore to the exposure of the combination to the control compound; and

evaluating the bioactive compound based on a difference in the measured response, the cell-induced response, and the control response.

REMARKS

Claims 1–27 are pending in the application, and the Patent Office contends that these claims define eight allegedly independent and distinct inventions. Applicants respectfully disagree and request that the Restriction Requirement be withdrawn. Alternatively, applicants seek modification of the Restriction Requirement, and request that the method claims of Examiner's Groups I–IV and VIII be combined and examined as a single group in the present application.

I. Restriction between the eight groups is improper

In alleging that the restricted groups are independent, the Restriction Requirement states that "[o]ne would not have to practice the various methods at the same time to practice just one method alone." No further support is given for this conclusion. Even if, solely for the purposes of discussion, this statement is true, it is not a proper standard for supporting restriction. See MPEP § 808.01. The Restriction Requirement provides no reasoned statement to support the conclusion that the claims are independent, whereas MPEP § 808 requires that reasons be provided for insisting upon restriction. Therefore the Restriction Requirement does not establish that claims of the present application are directed to independent and distinct inventions, and hence restriction is improper.